2: Underhill E-5 (1931-1935)1939 NU28 Papago NU28

592 Living arrangements: The daughters were not at home all the time but, the father having no sons, one of them was generally there with her husband.

Land: The land, having been first broken by the father of A 1, was shared between him and his brother. His sons-in-law had land of their own at Kaka, across the mountains, which they cultivated.

Work sharing: C 1, when there were no sons-in-law to help him, called on his brother's family who had two sons, but more people to feed. All worked in both fields until the work was done, but kept the produce separate.

Gifts: Cooked food was exchanged with Houses A and B at the main meal every day. At harvest the sons-in-law, whether they had helped or not, were asked to come and help themselves. They brought gifts with them from their own fields.

592 621 166 8. Households at Tecalote (Owl's Hoot) about 1890—1900 (informant 32)

This group of relatives had been migrating for several generations, about the southern part of the reservation and over the Mexican border. They had settled at Tecalote, then they went to Poso Verde (Mexico) Baboquivari, San Miguel, Vamori, leaving a few of their members at each place. One family finally returned to Tecalote and there dug a reservoir in a low spot. Their fields they planted in a wash some three miles away. Every summer, at cactus time, they joined the relatives from the above mentioned places and went into the foothills of Mexico to pick organ cactus. In the winters they worked in Mexico.

592 621 When the father of the single Tecalote family died, four of the children, two sons and two daughters used his field until the oldest son made himself a new one. The other three divided up the old field, though they worked it all together. Of the remaining two, a daughter married a man with a field at Wamori and a son acted as cowboy for the family cattle.

House A

592 1 Acting-Like-a-Girl, family head
2 "The Head Woman", osi of B 1, C 1, D 2, E 1, F 1
3 Manuel, son of A 1 and A 2
4 Salvador, son
5 Cecilia, d
6 Jose, s
7 Anton, s
8 Candelario

Land: A 2 should properly have gone to her husband's land but h[illegible] was from a Mexican village where the men were day laborers

4: Joseph et al D, E-5 (1942-1943) 1949
NU28 Papago NU28

There were other movements among the PAPAGO during the period. The date is uncertain, but perhaps around 1780 a group of Indians who were forced out of land along the Santa Cruz River north of Tucson settled near Kohatk or Sif Oidak and spread out from there; these people today are a distinct dialect group. At some time, perhaps after the Apache raid of 1848, it appears that the Sobaípuri left the old village of Bac where the Mission of San Xavier had been established,[15] and this village and the surrounding rich river lands were repeopled by Papago from the village of Achi.[16] As white people also coveted this land at San Xavier, in 1874 it was made a reservation under the jurisdiction of the Indian Agent on the Pima Reservation. In 1880 the people from Ahak Owuchi (Horn Lying) in the northwestern part of the present reservation migrated to work on the railroad at Gila Bend and stayed on the land along the Lower Gila River; a small area there was made a reservation in 1882. Others from the same village went to Akchin on the Maricopa Reservation.

Another movement was that of the Papago from Mexico to the United States. The missionized Papago (Kino's "Pima proper") intermixed with the general Mexican population, except for a fairly large group which maintained its identity and moved north. This was probably a progressive movement, over many years, started by the pressure of Mexicans settling in the Magdalena and Altar valleys and continuing as ranchers took over the range and water holes closer and closer to the border.[17] It is known that many people now living in the southern part of the Reservation (also a distinct dialect group) were born in Mexico.

Another migration in the early 1920's was that of the "Sand Papago" from the area around Sonoita into the southern Gu Vo District around Menager's Dam. The Sand Papago, who may once have been the Seba who moved north, had settled mainly around Sonoita, Ajo, and Yuma.

Thus the period was one of stir and movement. Today, ruins of many villages on the Reservation are silent proofs of these movements, but our knowledge of them remains nebulous.

In addition to these permanent moves, the Papago began to change the pattern of their old seasonal migrations. They had always lived in an economy of scarcity, and in bad years food was likely to be very scarce indeed. It was per-

15. *Ibid.*, p. 259. It has been suggested that the Sobaípuri, after having been pushed from the San Pedro to the Santa Cruz River by the Apache, moved on farther west and joined the Gileños to form what is now the Pima tribe on the Gila River.

16. Underhill (*Papago Calendar Record*, p. 16) says that the Seba Jipun were decimated by disease and that the Papago moved in afterward.

17. There are traditions of actual fighting between Papago and Mexicans in the 1870's and 1880's, though earlier fighting has been mentioned.

4: Joseph et al D.E-5 (1942-1943) 1949
NU28 Papago NU28

haps in this period that Papago from the northern villages began to go up to the Pima country to help the Pima harvest their abundant crops of wheat, while those in southern villages went to the ranches in Sonora. The young people of today say that their grandparents went on these treks in their youth.[18] These contacts with Mexicans and Pima are still evident on the Reservation, and some Papago say that Spanish prayers and fiestas, with their Mexican music and instruments, were introduced among the Desert People at this time.

About 1880, prospectors began to discover copper, silver, and gold in the Papago country. Many small mines were opened in this area, and mining towns at Quijotoa and Jackrabbit in the central and north-central parts of the present Reservation are said to have attained populations of five or six thousand, with regular stagecoach service, post offices, and at least one county school. The Indians watched this influx with both fear and interest. Some of them moved in to work in the mines; others moved away. Though most of the mines were abandoned after ten or fifteen years, the Indians benefited by the miners' improvements of springs and wells. The great mine at Ajo, which was opened at about the same time, has remained in operation, as have a few small mines in the area.

Not long after the miners, ranchers began to see possibilities in the Papago land. Several moved in and established large cattle ranches, one on an old Spanish land grant. Another rancher, who claimed that the Indian chief at Gu Achi had deeded to him in 1880 all the land bounded by the Santa Cruz, the Gila, and the Colorado rivers and the border, sold portions of that huge territory for large sums of money, gambling on the chance that the Supreme Court would validate his claims. The Court did not do so.[19] Some Indian villages were endangered by various other white encroachments, and, to protect them, reservations were created in 1911 and 1912 in three small sections in the northern part of the present Reservation, and one under Baboquivari Peak.

For the most part Papago lands are still the property of the tribe as a whole. In 1891 the Allotment Act, by which Indian lands were allotted to individuals, was applied to the San Xavier Reservation, but not until 1911 was a move made to allot other Papago lands. At this time sections around the principal eastern Papago villages were apportioned into individual holdings of 160 acres on a township-and-range basis, with no regard for hills, washes, or usability of the land. It was fortunate that only one out of 2,700 proposed allotments

18. In 1940–49 the people from Gu Achi and Hevatsi Mahpa went to Mexico to harvest beans (Underhill, *Papago Calendar Record*, p. 20).

19. Sells Agency Files, No. 340. "Papago Indian Lands—Arizona."

62 [20] on the reservation. Indian residents of Sells on the whole, seem to be well aware of events occurring beyond the borders of the reservation.

Surprisingly, there is no real community organi- [166] zation. This is probably due to the cosmopolitan nature of Sells with residents having moved there from all parts [571] of the reservation. The organizations which do exist revolve around voluntary associations, churches and cliques.

Residents of Sells have garden plots and some are [434] [463] cattle growers, but their main source of income is from salar- [464] ies and wages, with the majority working for the Bureau of Indian Affairs, the Public Health Service, and the Papago Tribe.

Santa Rosa is not as large as Sells, nor does it [368] have many of its characteristics. There is a community building, a government school, a government health center, a church, and a trading post with gasoline pumps. The community building is used for meetings which are held to plan ceremonies and various village projects. There [575] are also many voluntary associations, all patterned after similar Anglo associations, such as a Woman's Club, an Athletic Club, and a Boy Scout troop.

The Gu Achi District Council meets in the [634] community building and all political activity of the district is [178] centered here. Santa Rosa, however, in spite of progressive tendencies, contains some of the most traditional elements of Papago culture found on the Reservation.

Native

634 Ceremonial activities and traditional folk medicine centers
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[198] around Supai Oidak (Cold Fields), probably the most internally cohesive village in the district. The outside orientation of villagers in this district is towards Sells. The southernmost village in the district, Choulic, contains three or four families who are oriented toward activities in San Miguel of Chukut Kuk district.

Chukut Kuk District. This district shares its southern border with Mexico and traditionally the orientation of its villagers has been in that direction. Today, however, they join with villagers in Baboquivari District in sending their children either to Sells to the public school, or to Topawa to the Catholic Mission School. Villagers vote in
[166] Vamori and shop in Sells or Tucson. Many of the villagers in San Miguel, Vamori and the settlement of Tecolote have temporary homes in these villages and thus spend most of their time living in Sells where they work for wages. Oftentimes the "temporary" residence in Sells is in fact the "permanent" one.

Gu Achi District. Santa Rosa is the dominant town and provides medical and commerical services to residents throughout the area. It is also the seat of political activity of the district.

Gu Vo District. People in this district send their
[366] children to Gu Vo school. They commonly do their shopping in one of three places, either in Pisinimo, at the "T" Store near Ajo, or in Ajo proper. Almost twenty per cent of the

Pan Tak, Havana Nakya and Chiawuli Tak and Schuchk) go elsewhere for wage work, mostly to Kitt Peak and Sells. Those villages away from the highway in the mountains (Sil Nakya, Comobabi) maintain the old pattern of cattle raising and subsistence farming and are oriented toward Santa Rosa. 634 621 628 368

Sells District. This district has not been studied carefully, but it would not be inaccurate to say that Sells dominates every other location in providing major services, except that of native ceremonialism at Gu Oidak (Big Fields). Catholic children go to Topawa to school; Protestants go to the Public School in Sells.

Sif Oidak District. This district seems to be losing many of its residents. A recent visit to Kohatk (August, 1963) revealed many houses in disrepair and abandoned. Only six families were still living there. Chuichu also, with the closing of the school several years ago, has lost some of its importance and population. Anegam is the political seat of the district and perhaps the most "traditional". [166]

Non-Village Settlements. Under another definition, perhaps eight additional settlements on the Papago Reservation would be classified as villages. They are listed and described below. 621 361

Chevelic (Kakoviwari District). This village has no public building at all. It is spread over an area of some two-and-a-half miles, thus people nearest San Miguel orient

62 | themselves to that village. At the most, there are ten co-
36 | resident groups but information revealed in interviews shows us that seldom, if ever, do these ten groups identify with each other as separate and distinct from San Miguel or any other village mentioned.

Chukut Kuk (Tecolote)(Chukut Kuk District). This settlement too has no public building. There were only three co-resident groups living here and each had an outside orientation to either Sells or Ajo.

Pia Oik (Gu Vo District). This settlement had but three co-resident groups at the time of observation and but two abandoned houses to receive any more residents. There is a church, but it is in the fenced compound of Lewis Manuel and is more a family church than a community one. No priest visits this location regularly.

Chuwut Murk (Pisinimo District). This settlement
• [166] is barely accessible in August. Informants report that everyone moves to Pisinimo during the school year so that their children may attend. There is a church, but no priest visits it regularly.

Cuuobabi and Schuchk (Schuk Toak District).
[592] Cuuobabi has only one household of permanent residents, two
[166] old spinsters. There are, however, fifteen houses here in good condition and at least six to eight of these are inhabited seasonally. This village is best classified as seasonally "vacant".

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psychological base in cooperative family life, with roots in the traditional homeland to counterbalance the wage work cycle is of vital importance to Papago well-being as a firm pivot around which the individual may build his new adjustment to rapidly changing modern conditions. As such, the new dual orientation may well serve as the focus of administrative planning.[1]

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However, an increasing proportion of the Desert People who work on cotton farms no longer make an annual migration from reservation home to labor camp. They have moved from the reserves more or less permanently, consciously recognizing themselves as permanent farm workers. Mostly they are irrigators, but do general farm work, and include tractor drivers and other skilled workmen. They contribute some labor to harvesting cotton, since men pick when regular jobs are slack, and wives and children pick off and on. These [162] people made up over a fifth of the Papagos interviewed in the course of this study,[2] indicating that the number of Papagos living on farms outside the reserves all the time is relatively large, perhaps as many as 800.[3] They occupy an important place in the labor 464 picture and economy of the cotton-growing valleys. 182 Their ability to support themselves by wage labor is very important to the economy of the reserves, removing part of the population overload that cannot be supported adequately by the poor lands of the reserves.

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This form of adjustment to a radically changed economy has not progressed to its ultimate, however. In South Africa, where European settlers moved in and confined the natives to similar reserves, about 35% of the native population lives permanently on European owned farms.[4] If 800 Papagos live on southern Arizona farms all the time, only about 10% of the [162] population is living on European owned farms outside the reserves. (Perhaps as many live in southern Arizona cities.)

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[1] Thompson, 1951, p. 71.

[2] 12 of 53 families, or 22.6%.

[3] About 2,000 Papagos picked cotton in 1950, and about 4,500 lived in labor camps. So approximately 200 Papago men may be working as year-round farm laborers, and their wives add another 200 part-time cotton pickers. Their families are somewhat smaller than those of pickers migrating from the reserves.

[4] Hunter, 1937, p. 389.

The movement of the Desert People to permanent homes in labor camps on European owned farms, abandoning their roots on the tribal lands is a relatively new development. While Papagos have worked for Europeans for almost the entire period of contact, their work has always been brief in duration, a supplemental measure followed by a withdrawal to the homeland. Forsaking overcrowded tribal lands for good seems to have begun only within the last decade, and to have reached significant proportions only in the last 5 years. (Some Papagos have worked for many years as domestics or miners away from the reserves) This late beginning for a class of Papagos severed from their homeland is due to the peaceful nature of contacts between Papagos and Americans and to lack of opportunity for wide-scale farm employment until recent years. The Papago economic base was never destroyed by warfare with the incoming whites as in the case of the Navahos and many other tribes. Overpopulation on deteriorating reserves did not reach a critical point until about the same time extensive development of irrigated agricultural lands in nearby valleys began, offering a safety valve to those Papagos able to speak acceptable English and perform semi-skilled farm work.

This class of Papago farm laborers is very new compared to natives living on South African farms. Most of them have grown up on European farms, without any stake in native reserve areas. Some are descended from natives forced into farm labor by destruction of their cattle in wars nearly a century ago.[1]

The ties native South African farm workers retain with natives living in the reserves naturally depend on the time they have spent on the farms. Some entirely lack relatives or friends on reserves, and have never visited the reserves.[2] A very few Papago year-round farm laborers no longer have relatives on the reservations. But they all still have friends on the trust lands. They all were born on the reserves. They all still visit their old homes, even if only rarely. They are all very conscious that they are Desert People, and are only beginning to view themselves as people apart.

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[1] Hunter, 1937, p. 389.
[2] Ibid., p. 390.

461 464 454 261 The economic incentive in harvesting cotton is reflected in some purchasing habits of Papagos during picking season. About three-fifths of them buy some quantity of staple foods beyond their immediate needs in labor camps. They take such extra food back to the reserves on one of their trips to a fiesta, or at the end of the work season.[1] Flour, sugar, coffee, and beans bought with cotton picking wages help see the family through some of the months between harvest seasons. The quantity laid in is usually not large, probably enough for only a month or two.

432 439 The Desert People who pick cotton also purchase most of their clothing while they are at work and earning money--and are near Anglo shopping centers where prices are less than in reservation trading posts, and choice is wider. Many jackets, boots, and other items are purchased at Magdalena at fiesta also. Perhaps 7 Papago harvest hands are limited in their clothing purchasing to picking season and its ready cash of 10.[2]

461 871 Some of the Desert People do not go to work in the cotton fields from a need for money, however. There are some determined parents who are thoroughly convinced both of the necessity for educating their children and the inadequacy of Indian Bureau schools on the reserves. Some of them act upon their convictions by moving to labor camps so their children may attend public schools where they have to learn to compete with Anglo and Mexican-American children. This element of competition is generally absent from reservation [181] schools despite the best efforts of teachers because students are all Papagos, and Papago training is all toward cooperation and good interpersonal relations rather than competitiveness.

166 886 [462] Some older people go to labor camps because there is no one left on the reservation to care for them when the family goes to pick. As an old man put it, "I moved over here so my daughter could feed me." Women are the cooks in Papago society, and this widower had to come along with his daughter's family to eat.

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[1] of 22 families giving data, 14 purchased extra food to store, 64%.

[2] of 14 families giving data, 10 bought all their clothes during the work season in 1950--71%.

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591 Purely social reasons are behind the journeys of many of the Desert People to labor camps. "I came just because the others from my village did," is one typical reason. Probably most such individuals have the same economic compulsions as the others, but come to work because it is the thing to do. Others economically more secure with larger fields or herds than most may come for that reason only: to be with the group.

594 Then there are frequent casual visitors to labor camps. Relatives come for a while just to visit, perhaps because they have married into another village.

461 It must be remembered that the concept of the economic man is seldom true in life. While the Desert People come very close to that concept on the whole in their incentives for working for wages, they are still human beings with many uneconomic thoughts and desires which they carry out without regard to dollars and cents. Actually, these basic economic reasons for Papagos laboring are not uppermost in Papago consciousness when cash is in demand. What they think of is the immediate occasion when money is needed.

484 788 511 435 mescal and perhaps paying a small fine to get out of jail next morning, buying presents for folks back home and children, purchasing a new pair of boots or a coat and donating to the Saint and buying ribbons and relics to take home all added up. Probably most of the families going to Magdalena spent around $125.

788 435 511 [176] While Chuwhiy Cuwsk was not so expensive, and San Xavier considerably less in cost, the nearly 600 Papago families making pilgrimmages from labor camps spent at least $50,000 on the one religious celebration on St. Francis of Assisi's day, and more than likely spent about $75,000. It is hardly surprising that Magdalena merchants are glad to see Papagos.

461 511 Acquiring this amount of cash to spend is undoubtedly a very strong motive behind Papago cotton field labor. Growers impatient with their Indians for taking off work at this time must realize that this fiesta is one main reason the Desert People work at all!

166 484 184 574 Most Papago families picking cotton in 1950 made at least one trip home to the reserves. In fact, over four-fifths of them returned home at least once.[1] Some made frequent trips to care for livestock or poultry, or just to have a good time at fiestas, and many made two trips, which was about average.

484 796 769 [788] About 7 trips of every 10 were made at All Souls Day, the next important religious event after the fiesta of St. Francis, and the next most important in number of Indian participants.[2] However, there are no centers for the observance of this day of memorial. Families scatter to their home towns where they visit graveyards to leave flowers and candles and pray for the dead.

484 796 [796] The last of the trio of religious festivals falls on Dec. 3, the day of St. Francis Xavier. (Actually the Desert People do not clearly distinguish between Saints Francis of Assisi and Xavier. The big fiesta on Oct. 4 was probably held originally Dec. 3, the day of Jesuit St. Francis Xavier, but was shifted by later

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[1] 103 families of 84 giving data returned, 82%. 23 families made 30 plus trips (some interviews being early in the season didn't include all trips). 6 Pima and 4 Pinal county farmers said their Papago hands averaged just over 2 trips home per family during picking season, much to their employers' annoyance.

[2] 14 of 20 trips of known purpose were at All Souls, 70%.

Franciscan missionaries to the earlier date of their own St. Francis of Assisi). The fine old mission church at San Xavier del Bac is the goal of Papago pilgrims at that time. In 1950 about 15% of the Desert People picking cotton who left their jobs made the journey to San Xavier.[1]

One secular event in the fall competes with religious celebrations for the interest of the Desert People. This is their tribal rodeo staged at Sells. About 1 of 10 Papago cotton pickers attended one of the two-day 1950 performances.[2] Wage laborers were augmented by great numbers of stay-at-homes, who filled the 2,500-seat capacity stands both days with help of a few hundred Anglo visitors from Tucson and other southern Arizona towns.

A few laborers return to the reserves for other reasons--some women go home to their mothers when they are due to parturate, although most seem to bear their babies in labor camps without medical aid. Sometimes a quick trip home is necessary to look after animals or other property. But generally when the Desert People go to labor camps, they go to work steadily through the season. They leave only for--to them--pressing reasons.

Most farmers hiring Indians realize that religious celebrations are very pressing reasons. Obligations the Desert People feel they must fulfill at these times rise above considerations of steady work. The vow to St. Francis comes before some farmer's cotton, or the Papago's own job, and he will go to one of those three churches regardless of other duties. Farmers who realize the importance to the Papagos of their religion are much happier men at fiesta time than those who regard a job as the most important thing in the world.

However, many farmers do not understand the religious beliefs of their Papago employees sufficiently to make allowances when Indians ignore prevalent Anglo work standards. And cotton growers resent the inconvenience involved in transporting Papagos. A Marana farmer remarked "One reason I never fool with Papagos is you have to take them to Sells 3 or 4 times a year." Another who hired Papagos griped that "Indians are more

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[1] 3 of 28 trips of known purpose were to San Xavier.
[2] 2 of 20 trips of known purpose were to the rodeo.

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511 But those few hours are enough for the Papagos to spend about half their wages. During the war it was estimated $40 of every $100 they received from labor, cattle, and produce went immediately to business men operating outside the reserves.[1] With the boom in cotton, and the boom for Papago pickers, probably even more is spent off the reserves today.

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484 Most farmers who send a truck in to town with a load of Indians seem to have learned they have fewer problems with drunkenness if the trucks return to the labor camps before dinner. The time the Desert People spend in town now is considerably less than it was a few years ago, when the streets were filled with Papagos long after dark. Then on Monday morning farmers went to city halls in numbers to find some of their laborers and pay their "$10 or 10 day" fines so they could go back to work.

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[133] Drinking is still the main sin Anglo employers hold against Papago farm workers, as well as the number one social problem among the Desert People. As a farmer near Stanfield observed, "There's nothing more useless than a drunk Indian." It is the exceptional cotton farmer who can say of his Papagos they "drink less and are less trouble--the whites drink more." Most farmers would agree with a foreman who said that the Papagos in his camp "all drink, but very few get wild." Some growers control this problem by firing those of the Desert People unable to restrict their tippling to week ends in town. Cotton farmers often bail out good workers rather than lose their services for 10 days to the city. All over the irrigated valleys where Papagos work, bootlegging to Indians is an acute problem.

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[439] So widespread is drinking among the Desert People in labor camps that it appears to be one big attraction to Papagos to leave their reserves to work. Liquor is much more easily obtained in labor camps and trading towns than on isolated reserves. Friendly or profiteering Anglos, Negros and Mexican-Americans willing to sell a bottle to a thirsty Indian are relatively abundant around camps and towns. And enforcement of laws prohibiting liquor to Indians is especially difficult outside reserves. One isolated rural store, at

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[1] Program, Papago Reservation, 1944, p. 43.

19: Dobyns E-5 (1950) 1951 NU28 Papago NU28

INCENTIVES

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All incentives impelling papagos to work for wages in 1950 will continue into the foreseeable future.

WHY

There is no appreciable improvement in reservation resources on the Papago horizon. Congress shows no signs of passing the Papago Rehabilitation Bill while spending heavily for cold and hot wars.

Even were the Papago Development Program translated into reality, a large residue of Papagos will remain unsupported by their tribal lands. They must seek labor outside their reserves.

> "Upon completion of the range improvements, further irrigation developments, and improvement of the flash flood farming areas, it is estimated that the reservation resources will support at a reasonable level of living, not to exceed 800 families. This leaves about 400 families, together with the increase in population, who must be permanently located off the reservation."[1]

464 166 [22] 361 About 150 Papago families are pointing the way for those who must relocate, working in the Ajo mine and in other Arizona cities.[2] Many families are already living permanently on farms where they work. This study indicates perhaps 200 Papagos already work on farms the year round. They represent approximately 200 families of approximately 800 persons, far more than this writer, at least, expected beforehand. More Desert People can find permanent farm employment if they can learn skilled farm labor. Their situation is far from hopeless.

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[1] Secretary of the Interior, 1949, p. 10.
[2] Ibid., p. 10.

3: Whited G-5 (1890) 1894 NT15 River Yumans
Papago NU 28

101 797 of the Jesuit missionaries. When a considerable number of them had accepted the teachings of the missionaries they were called, by way of distinction, Papagos, from the Spanish word for pope, "papa". Baptism was involved in their becoming christians, and hair cutting was an incidental result of the influence of the missionaries. Neither of these facts, however, can account for the name. On the other hand, the derivation from "papa" is etymological and consistent with the facts. They had become adherent to the pope. So far as I can learn, this explanation of and origin of the name has never been published.

The resident missionary at Sacaton gave still another derivation of the word Papago. He speaks and preaches in the Indian tongue, and thinks the name is derived from the word "pa-pa-cot", meaning discontented. This could easily be corrupted into Papago. The Indians at an early date became much dissatisfied with the practices and tyranny of the jesuits, and this term was naturally applied to them.

166 The Papagos are a semisomadic tribe, their migrations being due to the peculiar character of the country which they inhabit. The exigencies of food, water, and labor are the principal causes of their temporary changes of habitation; but the extent of their migrations, and the localities which they occupy for varying periods, are within certain limitations. When, through the presence of wells or running water, the supply of that indispensable element is unfailing, they migrate in search of food or labor.

[312] When the water supply, which is procured from natural water holes or the earth reservoirs constructed by them, called tanks, where it accumulates during the rainy season, has been consumed, they remove to the vicinity of wells or running water found in the canyons of the mountains or in the deep valleys among the foothills. This migratory feature of their life greatly enhances the difficulty of an exact enumeration of the tribe.

[131] The territory over which they range lies south of the Southern Pacific railroad, in Arizona, and is about 100 by 150 miles in extent. Many thousands are also located in the state of Sonora, Mexico. They move back and forth at will between the two countries, and when a village is found in motion inquiry alone can determine, and then not always with certainty, on which side of the line they really belong.

161 From various publications relating to Arizona, and from the statements of ranchmen, miners, traders, surveyors, and a census enumerator, quite conflicting and divergent estimates were obtained of the number of the Papagos. These estimates range from 3,000 to 7,000, while most of them agree on 5,000 or 6,000 as the real number. One difficulty to be experienced in their enumeration is that at any season of the year a village of permanent houses, evidently the abode of hundreds of Indians, may be found without a single inhabitant, not because it has been deserted, but because the inhabitants are gone temporarily, leaving no information as to where they have gone, for what purpose, or for how long a time, and it would be impracticable to wait until their return or to follow them.

The only available method for obtaining even an approximate estimate of the number of these Indians seemed to be to ascertain, as far as practicable, the number of their villages and the aggregate number of houses contained in them. Multiplying the total number of houses by the average number of inmates per house would give a reasonable result. By actually counting the inmates of many houses in several villages, and with the indorsement of the judgment of the enumerator, 5 was adopted as the average number of inmates per house. As not less than 4 nor more than 11 were found in any given case, it was decided that 5 would be a conservative average and insure a total within the actual number rather than in excess of it.

126 161 In the accompanying map, showing the route during a 10 days' trip through the Papago country, Pima county is given on a scale of 7.5 inches to the mile. The villages are located from actual visitation or on information, with no effort at mathematical accuracy, but with the design of suggesting relations and distances. The trip was planned so as to reach as many villages as possible during the time allowed and to make a fair and correct census. The villages given in red are those actually visited, 5 of which were located by the Indians. The 2 villages marked with black, situated near the large ranch, were located, but omitted by mistake. The accompanying figures indicate the number of houses in each village. The villages given in black were located through the courtesy of [115] a trader among the Papagos, who is generally conceded to be the best informed person in Arizona in everything which relates to the tribe. The figures in black indicate his estimate of the population of each village. His estimate of the numbers living in the villages actually visited in enumerating varied only about 25, more or less, from the numbers in the given villages obtained by the multiplication of the number of houses by 5. In the cases mentioned the population was from 350 to 500, and such close agreement gave additional credibility to both his and our estimate.

161 The number of resident Indians at San Xavier was ascertained exactly when the reservation was divided among them in severalty, and is perfectly reliable.

Papagos at San Xavier	300
Papagos on line of expedition:	
467 houses, multiplied by 5	2,335
Additional, estimated by I. D. Smith	2,465
	5,000
Additional, reported by C. W. Crouse, agent at Sacaton (Papagos on the old reservation at Gila Bend)	40
Resident at Sacaton reservation	60
Total	5,100